

Title (en)  
METHOD FOR CONDITIONING SLAG WITH THE ADDITION OF METALLURGICAL RESIDUAL MATERIALS AND AN INSTALLATION FOR THE SAME

Title (de)  
VERFAHREN ZUR SCHLACKENKONDITIONIERUNG MIT EINBRINGEN VON HÜTTENRESTSTOFFEN SOWIE ANLAGE HIERZU

Title (fr)  
PROCEDE DE CONDITIONNEMENT DE SCORIES AVEC INCORPORATION DE RESIDUS SIDERURGIQUES, ET INSTALLATION CORRESPONDANTE

Publication  
**EP 1198599 B1 20040211 (DE)**

Application  
**EP 00940239 A 20000512**

Priority  
• AT 101199 A 19990608  
• EP 0004304 W 20000512

Abstract (en)  
[origin: WO0075385A1] The invention relates to a method for conditioning slag (17) and for recycling metallurgical residual materials in the iron and steel industry, in order to profitably utilise the slag (5, 7) and residual materials (6) which are produced at an iron and steel works. The method consists of the following stages: collecting and treating the liquid slag (5) of at least one tapping of a blast furnace and additional metallurgical slag (7) from a steel works in a slag-conditioning vessel (17); introducing metallurgical residual materials (6), preferably all said materials (6) and slag (25) from a pig-iron pre-treatment (18) into the slag-conditioning vessel; injection blowing reducing agents (23) into the slag-conditioning vessel for finishing the reaction of the added materials; introducing carbon (23) for alloying up the reduced iron from the iron-bearing residual materials (6); mixing the melts (26, 30) contained in the slag-conditioning vessel by injection blowing a circulation gas; heating the melts contained in the slag-conditioning vessel to the desired temperature or maintaining said melts at a specific temperature; adjusting the slag melt (30) contained in the slag-conditioning vessel to a desired composition, by introducing additives (22); tapping the conditioned-slag melt (30) and tapping the iron-bearing melt (26) without slag.

IPC 1-7  
**C22B 7/04**; **C22B 7/02**; **C21B 3/06**; **C21B 3/04**

IPC 8 full level  
**C21B 3/06** (2006.01); **C22B 5/10** (2006.01); **C22B 7/02** (2006.01); **C22B 7/04** (2006.01)

CPC (source: EP)  
**C21B 3/06** (2013.01); **C22B 5/10** (2013.01); **C22B 7/02** (2013.01); **C22B 7/04** (2013.01); **C21B 2400/02** (2018.07); **C21B 2400/026** (2018.07); **C21B 2400/034** (2018.07); **Y02P 10/20** (2015.11); **Y02W 30/50** (2015.05)

Cited by  
EP3375764A1; WO2022229084A1

Designated contracting state (EPC)  
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)  
**WO 0075385 A1 20001214**; AT 407644 B 20010525; AT A101199 A 20000915; DE 50005266 D1 20040318; EP 1198599 A1 20020424; EP 1198599 B1 20040211; ES 2215676 T3 20041016; ZA 200109971 B 20021204

DOCDB simple family (application)  
**EP 0004304 W 20000512**; AT 101199 A 19990608; DE 50005266 T 20000512; EP 00940239 A 20000512; ES 00940239 T 20000512; ZA 200109971 A 20011204